

WHAT IS CLAIMED IS:

1. A tape surface strain inspecting apparatus which optically inspects a surface of a tape and surface strain of said tape, the apparatus comprising:

a light emitting device emitting a light on the surface of said tape and forming a linear image which slants at a predetermined angle for a tape width direction of said tape;

an image taking device taking said image formed on the surface of the tape;

an image inspecting means investigating an edge linearity of an image taken by said image taking device; and

a strain discriminating means discriminating largeness of surface strain of said tape based on an inspection result by said image inspecting means.

2. A tape surface strain inspecting apparatus which optically inspects a surface of a tape and surface strain of said tape, the apparatus comprising:

a light emitting device emitting a light on the surface of said tape and forming a linear image which slants at a predetermined angle for a tape width direction of said tape;

an image taking device taking said image formed on the surface of the tape;

an image inspecting means investigating an edge linearity of each image transferred on a screen image taken by said image taking device; and

a strain discriminating means discriminating largeness of surface strain of said tape based on an inspection result by said image inspecting means.

3. A tape surface strain inspecting apparatus according to claim 1, which, when taking said image formed on a surface of said tape, has tape tension giving constant tension in a longitudinal direction of said tape.

4. A tape surface strain inspecting apparatus according to claim 2, which, when taking said image formed on a surface of said tape, has tape tension giving constant tension in a longitudinal direction of said tape.

5. A tape surface strain inspecting apparatus according to claim 1,
5 wherein an angle for a tape width direction of said tape is 45 degrees.

6. A tape surface strain inspecting apparatus according to claim 3, wherein an angle for a tape width direction of said tape is 45 degrees.

7. A tape surface strain inspecting apparatus according to claim 2, wherein said images are five pieces.

10 8. A tape surface strain inspecting apparatus according to claim 4, wherein said images are five pieces.

9. A tape surface strain inspecting apparatus according to claim 1, wherein said tape is a magnetic tape.

10. A tape surface strain inspecting apparatus according to claim 2,
15 wherein said tape is a magnetic tape.

11. A tape surface strain inspecting apparatus according to claim 3, wherein said tape is a magnetic tape.

12. A tape surface strain inspecting apparatus according to claim 4, wherein said tape is a magnetic tape.

20 13. A tape surface strain inspecting apparatus according to claim 5, wherein said tape is a magnetic tape.

14. A tape surface strain inspecting apparatus according to claim 7, wherein said tape is a magnetic tape.

25 15. A tape surface strain inspecting apparatus according to claim 1, wherein said tape is an optical recording tape.

16. A tape surface strain inspecting apparatus according to claim 2,

wherein said tape is an optical recording tape.

17. A tape surface strain inspecting apparatus according to claim 3,
wherein said tape is an optical recording tape.

18. A tape surface strain inspecting apparatus according to claim 4,
5 wherein said tape is an optical recording tape.

19. A tape surface strain inspecting apparatus according to claim 5,
wherein said tape is an optical recording tape.

20. A tape surface strain inspecting apparatus according to claim 7,
wherein said tape is an optical recording tape.